

Signalized Intersections

Signalized Intersection Level of Service (LOS) Criteria:



Congestion at a given signalized intersection is determined by: 1) The Critical Lane Volume (CLV) analysis to determine a Level of Service, and 2) Professional knowledge of intersection operation characteristics.



CLV analysis entails summing the highest through movement volumes plus the opposing left hand turns for each signal phase (the critical volume for that phase) and compares this to a theoretical capacity value of 1,600 vehicles per hour. A volume/capacity (v/c) rate is then calculated, i.e. total critical volume / 1,600.

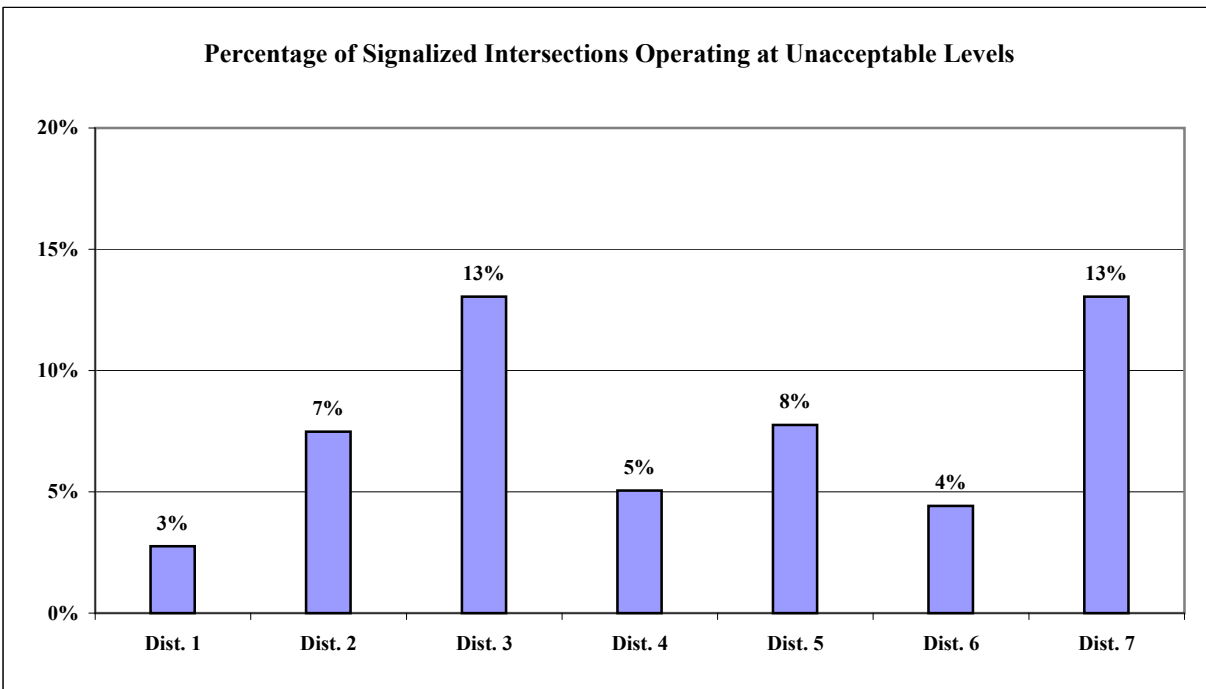


Congested intersections include Level of Service ratings of “E” or “F.”

Level of Service “E” = Critical Lane Volume from 1,450 to 1,600 (v/c range from 0.91 to 1.00 or 91% to 100% of capacity).

Level of Service “F” = Critical Lane Volume greater than 1,600 (v/c range greater than 1.00 or 100% of capacity or greater).

Signalized Intersections Operating at Unacceptable Levels



Congested Signalized Intersections on State Routes, by County (1999)

County	District #	# Cong.	% Cong.	Total #
Dorchester	1	0	0%	11
Somerset	1	0	0%	6
Wicomico	1	3	6%	50
Worcester	1	1	1%	78
Caroline	2	0	0%	12
Cecil	2	0	0%	51
Kent	2	1	10%	10
Queen Anne's	2	3	25%	12
Talbot	2	4	18%	22
Montgomery	3	75	16%	467
Prince George's	3	43	10%	437
Baltimore	4	18	5%	331
Harford	4	5	4%	124
Anne Arundel	5	16	6%	282
Calvert	5	3	13%	24
Charles	5	7	14%	50
St. Mary's	5	4	13%	31
Allegany	6	0	0%	32
Garrett	6	0	0%	9
Washington	6	5	7%	72
Carroll	7	11	16%	68
Frederick	7	7	10%	70
Howard	7	12	13%	92
Total		218	9%	2341